REMARKS

Claims 1-35 are pending in this matter. Claims 1-5, 9, 13-14, 16-18, 29, 31-32, and 34-35 were rejected under 35 USC 102(e) as being anticipated by Rabinovich (U.S. 6,256,675). Claims 6-8, 19, 30 and 33 were rejected under 35 USC 103(a) as being unpatentable over Rabinovich. Claims 10-11, 15, 21-22 were rejected under 35 USC 103(a) as being unpatentable over Rabinovich further in view of Shah, et al. (U.S. 6,298,381). Claims 23 and 25-28 were rejected under 35 USC 102(e) as being unpatentable over Bozman et al. (U.S. 6,385,699. Claim 24 is rejected under 35 USC 103(a) as being unpatentable over Bozman et al. The examiner objected to claim 12 as being dependent upon a rejected base claim but noted that it would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant thanks the examiner for this indication of allowable matter.

Rejections Under 35 U.S.C. §§ 102 and 103

As to claim 1, the examiner indicated on page 2 of the office action that Rabinovich teaches determining distance metrics with respect to a first server or host, citing col. 7, lines 45-55. But Rabinovich's teaching as to the nature of the host and the requestor are distinguishable from the server and clients recited in claim 1. Applicants respectfully request that the examiner reconsider the arguments expressed herein and specifically the teachings of the prior art.

Rabinovich relates to distributing requests for an object among replicas of the requested object and manages the placement of replicas of objects. (6:1-6). A request distributor assigns the request to a host based upon a request metric (e.g., a count of the number of requests for the object made by the request distributor to the host) and distance metric (e.g., the cost of communicating between the requestor and the host. (7: 30-38). The request distributor assigns a host that stores the replica to respond to the request based on the request metric and distance metric of the host in relation to the similar metrics of the other hosts that also store replicas of he object. (7:39-44).

Although Rabinovich teaches distance metrics with respect to assigning a server to respond to a request, this evaluates different network segments than recited in claim 1 of the present invention. That is, even setting aside for the moment any arguments as to whether Rabinovich's distance metric is a "proximity" as required by claim 1, the distance metric is evaluated over different segments. Instead of teaching deteermining proximities for loading

content to a first server or a second server based on the proximities, Rabinovich teaches considering a distance metric of a host already storing the requested object to the requestor and a consideration of the distance metric of a candidate host, the second host to the requestor. But this is taught in the context of migration of a replica from the first host (i.e., containing the object) to a second host (to which it is beneficial to migrate the object. Thus, in evaluating the distance metrics with respect to migration of objects, Rabinovich teaches only looking at a first host (already containing the content) and a second host that doesn't store the content but is a candidate to so store it. Hence, Rabinovich fails to teach or suggest all elements of the method of loading content to a server in anticipation of the need for the content as recited in claim 1, including determining a first proximity between the client or group of clients and a first server capable of storing and serving the content; determining a second proximity between the client or group of clients and a second server capable of storing and serving the content; and based upon the relative values of the first and second proximities, loading the content into one of the first and second servers.

Accordingly, for at least the reasons cited above, applicants submit that Rabinovich fails to teach or suggest all of the elements of claim 1.

For the same reasons as discussed above with respect to claim 1, applicants submit that Rabinovich fails to teach or suggest all of the elements of claim 13.

Claim 14 had previously been amended to further indicate measures of proximities used to include determination by at least one of the following factors: congestion, noise and loss on a network segment, and charges incurred to send. Although Rabinovich notes that the distance metric measures the cost of communicating between the requestor and the host, the only teachings as to the cost of communications provided are latency between the requestor and the host and, in a separate described teaching, the bandwidth of the channel between the requestor and the host. Rabinovich makes no teaching or suggestion that the "cost" comprises any specific measures other than one of the two mentioned. Hence, for at least this reason, Rabinovich fails to teach or suggest all of the elements of claim 14 including determining proximity by at least one of the following factors: congestion, noise and loss on a network segment, and charges incurred to send. Rabinovich teaches no such limitations and further, the examiner has not described or otherwise pointed out how Rabinovich teaches or suggests such limitations.

As to claim 16, the examiner indicated that at col. 8, Rabinovich disclosed that the request for content is sent to the host that has the best fit distance, cost or delay metrics with respect to the requesting client. Applicant disagrees that Rabinovich teaches or suggests the limitations of claim 16 including wherein at least one of the first and second proximities is determined by at least one of the following factors: congestion, noise and loss on a network segment, and charges incurred to send. Although Rabinovich notes that the distance metric measures the cost of communicating between the requestor and the host, the only specific teachings provided are latency between the requestor and the host and, in a separate example, the bandwidth of the channel between the requestor and the host. Rabinovich makes no teaching or suggestion that the "cost" comprises any specific measures other than bandwidth of the channel between the requestor and the host or latency. Hence, for at least this reason, Rabinovich fails to teach or suggest all of the limitations of claim 16. Rabinovich's silence in describing any other factors in determining the cost of communication cannot be assumed to teach these limitations, either expressly or inherently. The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. Rather, the missing element must be necessarily present. (MPEP 2112).

Claims 23 and 25-28 were rejected under 35 USC 102(e) as being unpatentable over Bozman et al. (U.S. 6,385,699). Claim 24 is rejected under 35 USC 103(a) as being unpatentable over Bozman et al. The examiner stated on page 7 of the office action that Bozman discloses that the object with the minimum penalty is replaced and that a comparison algorithm is used in determining the lowest penalty. Bozman fails to suggest using any factors to determine replacement cost other than the latency, bandwidth, and availability of the storage repository (5: 35-45) or as to a network connection, latency or average bandwidth for data transfers (6:5-30). Claim 23 has been amended to delete bandwidth from the specific factors recited. Thus for at least this reason, Bozman fails to teach or suggest all elements of claim 23. Further as to claim 28, Bosman fails to teach the determination of first and second proximities using a combination of the specific factors mentioned. As noted above, the specific factors disclosed by Bozman include latency, bandwidth, and availability of the storage repository (5: 35-45) or as to a network connection, latency or average bandwidth for data transfers

Claim 29 is a content control system claim. Applicant disagrees that Rabinovich's teachings or suggestions as to distance metrics teach the specific limitations as recited in the claim. Although Rabinovich notes that the distance metric measures the cost of communicating

between the requestor and the host, the only examples provided are latency between the requestor and the host and, in a separate example, the bandwidth of the channel between the requestor and the host. Rabinovich makes no teaching or suggestion that the "cost" comprises any specific measures other than bandwidth and latency mentioned. Hence, applicant respectfully submits that Rabinovich fails to teach or suggest all of the elements of claim 29.

Claims 2-12, 15, 17-22, 24-28, and 30-35 are dependant claims, depending respectively form independent claims 1, 14, 16, 23, and 29. Thus, at least due to these dependencies, the dependent claims are submitted to be in allowable form. Further, the dependent claims recite additional elements which when taken in the context of the claimed invention further patentably distinguish the art of record. The additional limitations recited in the dependent claims are not further discussed as the above-discussed limitations are clearly sufficient to distinguish the claimed. Withdrawal of the rejections is respectfully requested.

Conclusion

Accordingly, it is submitted that all issues in the Office Action have been addressed, and withdrawal of the rejections is respectfully requested. Applicant believes that this application is in condition for allowance, and requests a prompt passage to issuance. If the Examiner believes that a telephone conference would expedite the prosecution of this application, he is invited to contact the Applicant's undersigned attorney at the telephone number set out below.

Respectfully submitted,
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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

CLAIMS

23. (three times amended) A method of releasing stored content items from a server to make room for new content items, the method comprising:

(a) identifying, on the server, a first stored content item and a second stored content item;

(b) determining a first proximity between the server and a source of the first stored content item;

(c) determining a second proximity between the server and a source of the second stored content item; and

(d) releasing one of the first and second stored content items by directly comparing the relative values of the first and second proximities, wherein at least one of the first and second proximities is determined by at least one of the following factors: [bandwidth,] number of hops, congestion, noise and loss on a network segment, and charges incurred to send.